

JET Meeting Minutes

March 18, 2008

I. Participants

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Action Items

1. Continuing: DREN will request that their NOC report the IPv6 faults they find.
2. Continuing: Dan Magorian will forward the USGS description of its experience with implementing TIC-type capabilities.
3. Joe Burescia will send the URL for an ESnet workshop.
4. Grant Miller and Paul Love will add comments on low latency requirements to the TIC white paper and forward the white paper to Randy Vickers at DHS.
5. Bobby Cates will send out new versions of the Reference TIC Architecture to the JET email list as they are approved for release.
6. Bobby Cates will discuss with his contacts the possibility of holding a session at the July Joint Techs on TICs. If Bobby is unsuccessful, Grant Miller and Paul Love will approach Randy Vickers on this.

Proceedings

This meeting of the JET was coordinated by Paul Love of the NCO.

Network Roundtable

ESnet

The ESnet Juniper MX960 router problems reported last month have been fixed. Future Juniper releases will implement the fix. ESnet will roll out their 10 Gbps Science Data Net (SDN) by the end of the year. They are working with NOAA to implement a dark fiber connection to Princeton by the end of summer. It will support the plasma physics scientists at PPPL, high energy physicists at Princeton University, and NOAA scientists at GFDL.

Internet2Net

The space in Charlotte has been identified for its upgrade to an Optical Add Drop Node with an Internet2 Ciena node. The scheduled May 31 turn-up is expected to be completed on time. Infinera gear is being used for the optical network. Infinera is upgrading their Level 3 network. They identified some problems going from Version 3.0 code to Version 4.0 code that requires an upgrade to Version 4.1 code at a large number of sites. OAM issues are decreasing. They had been driving the upgrade. The IP network upgrade (the Juniper T640s) train was upgraded from Version 7.6 to Version 8.4. Internet2Net is getting additional power and racks to support ESnet's SDN. Level 3 is providing the racks and power.

At all nodes supporting observatory collaborations, NDT and NPAD servers are being implemented.

NLM: Nothing new

NOAA

Connectivity to Princeton is being implemented in coordination with ESnet (see ESnet above).

NREN: Nothing new

AWave

Progress is being made to provide Arecibo access to A-Wave for the Terena8 event as a special project. The vLANS from Brazil to CERN are being tested.

Exchange Points

NGIX-West

Carnegie Mellon's West Coast campus is connected to CENIC via Ames. . Hurricane Electric is interested in IPv6 peering.

StarLight

One of the two vLANS from CERN to Brazil has an MTU discontinuity. This is being resolved so that both will support Jumbo Frames. StarLight has received a request for Layer 2 service to connect observatory telescope sites.

MAN LAN: Nothing new to report

NGIX-East/MAX

NGIX-East is exploring backup and redundancy options using dark fiber that MIT has to Baltimore

Meetings of Interest

April 6-7, ARIN meeting in Denver to discuss IPv4 & IPv6 policies.

April 21-23, Internet2 Spring Member Meeting, Arlington, VA

July 20-23 Joint Techs, Lincoln, Nebraska

July 21 or 22 JET Meeting, Lincoln Nebraska

July 23-24 ESCC, Lincoln, Nebraska

August, 2nd week: DREN Networkers Conference, San Diego

AI: Joe Burreseia will send the URL for an ESnet workshop.

Trusted Internet Connections

AI: Grant Miller and Paul Love will add comments on low latency requirements to the TIC white paper and forward the revised white paper to Randy Vickers at DHS.

Bobby Cates, who interacts with the TIC Architecture Committee, provided comments on the TIC requirements, process and implementation. He indicated that every network has a representative on the TIC committee at CIO level. The TIC architecture started at a high level without much detail. The goal is to capture Layer 3 Web and email traffic. They assume everyone has commercial traffic links that could be captured. TICs can be distributed by using layer 1/2 to tie together. Monitoring mechanisms are flow-based. The TIC architecture needs to distinguish between public and private peering. Additional networks, such as the JETnets, have different requirements. Large flows, high speeds, multicast, and IPv6 traffic can not currently be monitored. The TIC Committee has undertaken a study to determine what it is feasible for them to monitor. There is not a lot of feedback from the Information Security Systems group. A Draft of the requirements Phase 1 document was issued last week addressing Layer 3 easy to monitor traffic and providing rules for July 2008 implementation; most science issues were not addressed, especially those not oriented around a supercomputer center. They are still identifying where to place Web and email monitors. Additional documents on Phase 2 and Phase 3 will be issued at a later time as issues are resolved. There will always be advanced applications that will be beyond the capacity of monitoring equipments to monitor in which case waivers will be granted.

It has been agreed that Fednets can peer via simple cross connects inside any walled gardens.

OMB and DHS are interested in working with the NGIXs on TICs so they can address the greatest number of networks in a coordinated and consolidated manner.

The TICS have not identified requirements for physical security. Ames Research Center provided the Committee with their requirements for physical security but no decision has been made.

AI: Bobby Cates will send out new versions of the Reference TIC Architecture to the JET

email list as they are approved for release.

Suggestions were made to hold a session (BoF or plenary) on TICs at the Joint Techs Meeting in July in Lincoln, Nebraska.

AI: Bobby Cates will discuss with his contacts to see about a session at the July Joint Techs on TICs (plenary, BoF, or ...). If Bobby is unsuccessful, Grant Miller and Paul Love will approach Randy Vickers on this.

Future JET Meetings

April 15, 11:00-2:00, NSF, Room 1150

May 20, 11:00-2:00, NSF, Room 1150